

## WHAT IS CLAIMED IS:

1. A stainproofing agent comprising:

(A) a fluoroalkyl group-containing copolymer comprising

(I) a structure unit derived from a monomer having a fluoroalkyl group,

(II) a structure unit derived from a monomer containing no fluorine,

(III) a structure unit derived from vinyl chloride, and

(IV) a structure unit derived from a crosslinking monomer;

(B) a urethane compound having a fluoroalkyl group, or a copolymer having

(V) a structure unit derived from a monomer having a fluoroalkyl group and a carbon-carbon double bond, and

(VI) a structure unit derived from a monomer which contains no fluorine atom and has at least one urethane or urea linkage and one carbon-carbon double bond; and

(C) an acrylic copolymer containing no fluorine.

2. The stainproofing agent according to claim 1, wherein the monomer constituting the structure unit (I) is represented by the general formula:



wherein  $R_f$  is a linear or branched fluoroalkyl group having 3 to 20 carbon atoms;

$R^1$  is a linear or branched alkylene group having 1 to 20 carbon atoms, a group of  $-SO_2N(R^3)R^4-$  or a group of  $-CH_2CH(OR^5)CH_2-$  ( $R^3$  is an alkyl group having 1 to 10 carbon atoms;  $R^4$  is a linear or branched alkylene group having 1 to 10 carbon atoms; and  $R^5$  is a hydrogen atom or an acyl group having 1 to 10 carbon atoms); and

constituting the structure unit (VI) is a monomer obtained by reacting:

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- (a) a compound having at least two isocyanate groups,
  - (b) a compound having one carbon-carbon double bond and at least one hydroxyl or amino group, and
  - 5 (c) a compound having one hydroxyl or amino group.

6. The stainproofing agent according to claim 1, wherein the copolymer (C) is derived from at least two (meth)acrylic monomers containing no fluorine, and the (meth)acrylic monomer containing no fluorine is represented by the general formula:



wherein  $\text{X}^1$  is a hydrogen atom or a methyl group; and  $\text{X}^2$  is a linear or branched  $\text{C}_n\text{H}_{2n+1}$  ( $n=1-5$ ).

7. The stainproofing agent according to claim 1, wherein the amount of the structure unit (I) is from 40 to 90% by weight, the amount of the structure unit (II) is from 5 to 60% by weight, the amount of the structure unit (III) is from 5 to 50% by weight, and the amount of the structure unit (IV) is from 0.1 to 10% by weight, respectively, based on the copolymer (A).

8. The stainproofing agent according to claim 1, wherein the copolymer (A), the urethane compound or urethane-containing copolymer (B) and the copolymer (C) are in the form of an aqueous dispersion in a medium comprising water.

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9. The stainproofing agent according to claim 1, wherein the copolymer (A), the urethane compound or urethane-containing the copolymer (B) and the copolymer (C) are in the form of an aqueous dispersion in a medium comprising water, using a nonionic and/or anionic emulsifying agents.

10. A stainproofing agent comprising:

(B) a copolymer having:

(V) a structure unit derived from a monomer having a fluoroalkyl group and carbon-carbon double bond, and

5 (VI) a structure unit derived from a monomer which contains no fluorine atom and has at least one urethane or urea linkage and one carbon-carbon double bond; and

(C) an acrylic copolymer containing no fluorine.

10 11. The stainproofing agent according to claim 1, wherein urethane-containing copolymer (B) and the copolymer (C) are in the form of an aqueous dispersion prepared by dispersing in a medium mainly composed of water.

12. A textile which is treated with the stainproofing agent according to anyone of claims 1 to 11.

13. The textile according to claim 12, which is a carpet.

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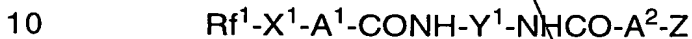
$R^2$  is a hydrogen atom or a methyl group.

3. The stainproofing agent according to claim 1, wherein the monomer constituting the structure unit (II) is acrylate represented by the general formula:



5 wherein  $B^1$  is a hydrogen atom or a methyl group; and  $B^2$  is an alkyl group represented by  $C_nH_{2n+1}$  ( $n=1-30$ ).

4. The stainproofing agent according to claim 1, wherein the urethane compound (B) having a fluoroalkyl group is an urethane compound represented by the general formula:



wherein  $Rf^1$  is a fluoroalkyl group having 4 to 16 carbon atoms;  $X^1$  is  $-R^1$ -,  $-CON(R^2)-Q^1$ - or  $-SO_2N(R^2)-Q^1$ - ( $R^1$  is an alkylene group;  $R^2$  is a hydrogen atom or a lower alkyl group and;  $Q^1$  is an alkylene group);  $A^1$  and  $A^2$  are respectively  $-O$ -,  $-S$ - or  $-N(R^2)$ - ( $R^2$  is a hydrogen atom or a lower alkyl group);  $Y^1$  is a residue wherein isocyanate is removed from an aromatic or alicyclic diisocyanate; and  $Z$  is an alkyl group, an aryl group or  $-X^1-Rf^1$ , or an urethane compound represented by the general formula:



20 wherein  $Rf^2$  is a fluoroalkyl group having 4 to 16 carbon atoms and is  $X^2$  is  $-R^1$ -,  $-CON(R^2)-Q^1$ - or  $-SO_2N(R^2)-Q^1$ - ( $R^1$  is an alkylene group;  $R^2$  is a hydrogen atom or a lower alkyl group and;  $Q^1$  is an alkylene group);  $A^3$  is  $-O$ -,  $-S$ - or  $-N(R^3)$ - ( $R^3$  is a hydrogen atom or a lower alkyl group);  $Y^2$  is a residue wherein isocyanate is removed from an aromatic or alicyclic diisocyanate; and  $W$  is a hydrophilic group.

25 5. The stainproofing agent according to claim 1, wherein the monomer

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